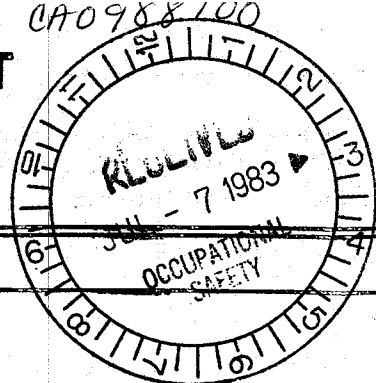


MATERIAL SAFETY DATA SHEET

FOR COATINGS, RESINS AND RELATED MATERIALS

(Approved by U.S. Department of Labor "Essentially Similar" to Form OSHA-20)

DATE OF PREP. 1/82



Section I

MANUFACTURER'S NAME BOSTIK WEST, DIVISION OF EMHART CORPORATION

STREET ADDRESS 20846 S. NORMANDIE AVE. CITY, STATE, AND ZIP CODE TORRANCE, CA. 90502

EMERGENCY TELEPHONE NO. (213) 320-6800

PRODUCT CLASS EPOXY BASE
(DPM-110) BLACK GLOSS, 595a-17038

MANUFACTURERS CODE IDENTIFICATION 443-3-17

TRADE NAME BOSTIK DPM 110 #7804

Catalyst: X-304

Mix Ratio: 3 parts 443-3-17(Base) to
1 part X-304 by volume

Section II - HAZARDOUS INGREDIENTS

INGREDIENT	CAS NO.	PERCENT (Wt.)	TLV		LEL	VAPOR PRESSURE
			PPM	mg/M ³		
443-3-17(Base Only)						
Methyl Ethyl Ketone	78-93-3	20-25	200		1.8	70
Toluene	108-88-3	10-15	200		1.2	22
Methyl n-Butyl Ketone	591-78-6	10-15	25		1.2	10
Butyl Cellosolve	111-76-2	<5.0	50		1.1	1
Xylene	1330-20-7	<5.0	100		1.0	7
Isobutyl Alcohol	67-63-0	<1.0	400		2.5	33
n-Butyl Acetate	123-86-4	5-10	150		1.7	8

Section III - PHYSICAL DATA

BOILING RANGE 176-340° F.

VAPOR DENSITY



HEAVIER



LIGHTER THAN AIR

EVAPORATION RATE ☐ FASTER ☒ SLOWER THAN ETHER

PERCENT VOLATILE
BY VOLUME

48%

WEIGHT PER
GALLON

7.9 Lbs.

Section IV - FIRE AND EXPLOSION HAZARD DATA

DOT CATEGORY Red Label, Flammable

FLASH POINT (Min)

23° F.

Tag Closed Cup

LEL 1.0

EXTINGUISHING MEDIA

Exclude air-Use foam, CO₂, steam, water fog,
dry chemicals. Do not use water.

UNUSUAL FIRE AND EXPLOSION HAZARDS

Vapor forms explosive mixture with air between
upper and lower explosion limits.

SPECIAL FIRE FIGHTING PROCEDURES

Do not use water, exclude air, use water spray
to cool fire exposed surfaces and to protect
personnel.

Section V — HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE : See Section II

EFFECTS OF OVEREXPOSURE: Headache, nausea, dizziness. Breathing vapor will be irritating to nose, throat and eyes.

EMERGENCY AND FIRST AID PROCEDURES Skin Exposure: Wash affected area with soap & water.
Eye Exposure: Flush with water for at least 15 minutes, consult physician.
Ingestion: Consult physician immediately.
Inhalation: Remove victim to fresh air, consult physician.

Section VI — REACTIVITY DATA

STABILITY ☐ UNSTABLE ☒ STABLE

CONDITIONS TO AVOID : Storage at high temperatures.

INCOMPATIBILITY (Materials to avoid) Strong oxidizing agents, Inorganic acids, Sparks & open flame.

HAZARDOUS DECOMPOSITION PRODUCTS : By fire, CO, CO₂, Oxides of Nitrogen.

Avoid contact with water, alcohols, amines & other compounds which react with isocyanates.

HAZARDOUS POLYMERIZATION ☐ MAY OCCUR ☒ WILL NOT OCCUR

CONDITIONS TO AVOID

Section VII — SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED : Eliminate sources of ignition and clear fumes from area. Prevent liquid from entering sewers, water sources, or low areas. Keep unnecessary personnel away. Shut off source, if possible to do so without hazard. Contain spilled liquid with sawdust or oil absorbing compound. Wash area with detergent & water. Consult disposal expert & ensure conformity with local regulations.

Section VIII — SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION: Use approved respiratory protection such as an air-supplied mask if used in non-ventilated area.

Mechanical: Explosion-proof ventilation equipment. No smoking or open lights.

VENTILATION Face velocity > 60 fpm in confined area.

PROTECTIVE GLOVES : Chemically resistant gloves.

EYE PROTECTION : Chemical splash goggles or face shield.

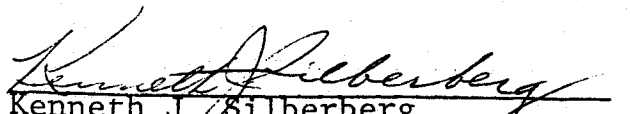
OTHER PROTECTIVE EQUIPMENT : Eye bath & safety shower.

Section IX — SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING : Material is sensitive to moisture and should be kept in tightly closed containers.

OTHER PRECAUTIONS

All handling equipment should be electrically grounded. Treat as a very flammable liquid.

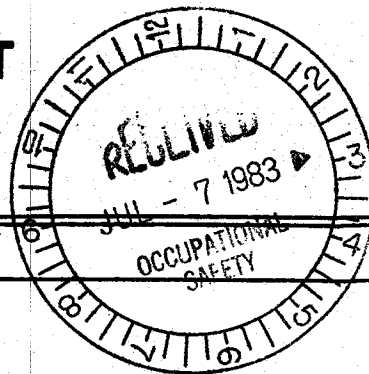

Kenneth J. Silberberg
Technical Administrative Manager

MATERIAL SAFETY DATA SHEET

FOR COATINGS, RESINS AND RELATED MATERIALS

(Approved by U.S. Department of Labor "Essentially Similar" to Form OSHA-20)

DATE OF PREP. 10-81



Section I

MANUFACTURER'S NAME BOSTIK WEST, DIVISION OF EMHART CORPORATION

STREET ADDRESS 20846 S. NORMANDIE AVE. CITY, STATE, AND ZIP CODE TORRANCE, CA. 90502

EMERGENCY TELEPHONE NO. (213) 320-6800

PRODUCT CLASS AMINE

TRADE NAME BOSTIK

MANUFACTURERS CODE IDENTIFICATION X-304

Catalyst for 443-3-Series; 3 parts base to 1 part X-304.

453-1000 Series; 4 parts base to 1 part X-304.

463-3-Series; 4 parts base to 1 part X-304.

Section II - HAZARDOUS INGREDIENTS

INGREDIENT	CAS NO.	PERCENT (Wt.)	TLV		LEL	VAPOR PRESSURE
			PPM	mg/M ³		
X-304 EPOXY CATALYST*						
Methyl Ethyl Ketone	78-93-3	25-30	200		1.8	70
Butyl Alcohol	71-36-3	20-25	100		1.7	4
Butyl Acetate	123-86-4	20-25	150		1.7	8
Butyl Cellosolve	111-76-2	10-15	50		1.1	1
Toluene	108-88-3	5-10	200		1.2	22
*X-304 may also contain a minor amount of diethylene triamine(DETA) ACGIH, TWA	111-40-0		1.0			

Section III - PHYSICAL DATA

BOILING RANGE 176-340° F. VAPOR DENSITY ☒ HEAVIER ☐ LIGHTER THAN AIR

EVAPORATION RATE ☐ FASTER ☒ SLOWER THAN ETHER PERCENT VOLATILE BY VOLUME 75% WEIGHT PER GALLON 7.1 lbs.

Section IV - FIRE AND EXPLOSION HAZARD DATA

DOT CATEGORY 2, Flammable (Min) FLASH POINT 23° F. Tag Closed LEL 1.1
Cup

EXTINGUISHING MEDIA

Exclude air-Use foam, CO₂, steam, water fog,
dry chemicals. Do not use water.

UNUSUAL FIRE AND EXPLOSION HAZARDS

Vapor forms explosive mixture with air between
upper and lower explosion limits.

SPECIAL FIRE FIGHTING PROCEDURES

Do not use water, exclude air, use water spray
to cool fire exposed surfaces and to protect
personnel:

Section V — HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE See Section II

EFFECTS OF OVEREXPOSURE Headache, nausea, dizziness. Breathing vapor will be irritating to nose, throat, and eyes.

EMERGENCY AND FIRST AID PROCEDURES : Skin Exposure: Wash affected area with soap and water. Eye Exposure: Flush with water for at least 15 minutes, consult physician. Ingestion: Consult physician immediately. Inhalation: Remove victim to fresh air, consult physician.

Section VI — REACTIVITY DATA

STABILITY ☐ UNSTABLE ☒ STABLE CONDITIONS TO AVOID Storage at high temperatures. INCOMPATIBILITY (Materials to avoid) Strong oxidizing agents. Sparks & open flame.

HAZARDOUS DECOMPOSITION PRODUCTS

On combustion CO, CO₂, Aldehydes and other organics, oxides of nitrogen.

HAZARDOUS POLYMERIZATION ☐ MAY OCCUR ☒ WILL NOT OCCUR

CONDITIONS TO AVOID

Section VII — SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Eliminate sources of ignition and clear fumes from area. Prevent liquid from entering sewers, water sources, or low areas. Keep unnecessary personnel away. Shut off source, if possible to do so without hazard. Contain spilled liquid with sawdust, sand or oil absorbing compound. Wash area with detergent & water. Consult disposal expert and ensure conformity with local regulations.

Section VIII — SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION: Use approved respiratory protection such as an air-supplied mask if used in non ventilated area.

Mechanical: Explosion-proof ventilation equipment. No smoking or open lights.

VENTILATION : Face velocity > 60fpm in confined area.

PROTECTIVE GLOVES Chemically resistant gloves.

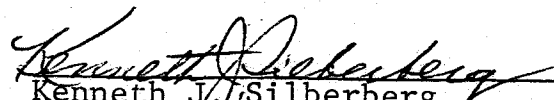
EYE PROTECTION Chemical splash goggles or face shield.

OTHER PROTECTIVE EQUIPMENT Eye bath & Safety shower.

Section IX — SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING : Keep containers closed when not in use. Do Not handle or store near flame, heat or strong oxidants. Adequate ventilation required. Containers of this product may be hazardous when emptied -these OTHER PRECAUTIONS containers retain product residues (vapor, liquid, etc.).

All handling equipment should be electrically grounded. Treat as a very flammable liquid.


Kenneth J. Silberberg
Technical Administrative Manager